American
POTATO JOURNAL

Official Organ of the Potato Association of America

VOLUME 30

JANUARY - DECEMBER 1953

EDITORS

WM. H. MARTIN

J. C. CAMPBELL E. S. CLARK

RUTGERS UNIVERSITY, NEW BRUNSWICK, NEW JERSEY

OFFICERS

J. H. MUNCIE, *President*

ARTHUR HAMKINS, *Vice President*

R. W. HOUGAS, *Secretary*

JOHN C. CAMPBELL, *Treasurer*

G. H. RIEMAN, *Past President*

J. W. SCANNELL, *President-Elect*

DIRECTORS

PAUL EASTMAN CECIL FRUTCHEY

N. M. PARKS

SUSTAINING MEMBERS

H. H. ROBERTSON CO. ..... Pittsburgh, Pennsylvania
THE DOW CHEMICAL CO. ..... Midland, Michigan
STARKS FARMS INC. ..... Route 3, Rhinelander, Wisconsin
BACON BPOTHERS ..... 1425 So. Racine Ave., Chicago 8, Illinois
L. L. OLDS SEED CO. ..... Madison, Wisconsin
FRANK L. CLARK, Founder — Clark Seed Farms ..... Richford, New York
RED DOT FOODS, INC. ..... Madison, Wisconsin
INTERNATIONAL HARVESTER CO. ..... Chicago, Illinois
ROHM & HAAS COMPANY ..... Philadelphia, Pennsylvania
CALUMET DIVISION, CALUMET & HECLA, INC. ..... 1 Calumet Ave., Calumet, Michigan
WISE POTATO CHIP CO. ..... Berwick, Pennsylvania
JOHN BEAN DIVISION, FOOD MACHINERY CORP. ..... Lansing 4, Michigan
S. KENNEDY & SONS, Growers and Shippers of Potatoes and Onions ..Clear Lake, Iowa
MATHIESON CHEMICAL CORP. ..... Mathieson Bldg., Baltimore, 3, Maryland
AMERICAN AGRICULTURAL CHEMICAL CO. ..... Carteret, New Jersey
GREEN CROSS INSECTICIDES ..... Montreal, Ottawa, Canada

INDEX TO VOLUME 30

Author and Title Index

Adams, J. B., see Kelly, R.A.

Andersen, E. T. and N. Sandar. Description of the "Manota" variety of potato. 50-52.

Babb, M. F., see Dearborn, C. H.

Baird, P. H., see Kelly, R. A.

Bemis, K. P. Our markets, our research and our sales of potatoes. 15-19.

Bonde, R. Preliminary studies on the control of bacterial decay of the potato with antibiotics. 143-147.

Brandes, G. A. The history and development of the ethylene bisdithiocarbamate fungicides. 137-140.

Clanahan, D. L. Influence of the 400 Bushel Club on Michigan potato production practices. 150-153.

Cooper, D. C., see Rieman, G. H.

Cunningham, H. S., see Ellison, J. H.

Darling, H. M. Ring rot survey, 1940-1951. 184-185.

————., see Wallin, J. R.

Dearborn, C. H., M. F. Babb, and A. Kallio. Knik, a new potato variety for Alaska. 148-149.

Ellison, J. H. Varietal susceptibility to internal brown spot of potatoes. 92-94.

———— and H. S. Cunningham. Effect of sprout inhibitors on the incidence of fusarium dry rot and sprouting of potato tubers. 10-14.

Fernow, K. H. and S. H. Kerr. Leafroll control by use of insecticides. 187-196.

Fitzpatrick, R. A. Trends in potato production and sales, 1940-1950. 155-164.

Franklin, E. W. and N. R. Thompson. Some effects of maleic hydrazide on stored potatoes. 289-295.

Gibson, K. E., see Landis, B. J.

Glaves, A. H., see Lutz, J. M.

Greenwood, M. L., see White, E. S.

Grover, O. and O. C. Turnquist. "Redburt": a new potato variety. 186.

Guimaraes, F. F. Potato growing in Brazil. 124-129.

Hay, R. J., see Payne, M. G.

Hopkins, R. B. The box as a container for potatoes. 221-225.

————. The reduction of injuries to potato tubers through the use of padding materials. 247-255.

Jacob, W. C., see VanMiddelem, C. H.

Johnson, G., see Schaal, L. A.

Kallio, A., see Dearborn, C. H.

Kelly, R. A., J. B. Adams, and P. H. Baird. Potato foliage development. 29-34.

Kennedy, S. Palletized handling and storage of potatoes. 78-81.

Kerr, S. H., see Fernow, K. H.

Kirkpatrick, M. E. Cooking quality of potatoes; its evaluation and relationship to potato characteristics. 52-53.

Kirkpatrick, H. C., see Natti, J. J.

Landis, B. J., and K. E. Gibson. Observations on the effectiveness of DDT, parathion, and malathon against the iris whitefly on potatoes. 213-220.

Livingston, C. H., see Payne, M. G.

Lutz, J. M. Fusarium tuber rots of late potatoes as related to injuries and certain chemical treatments. 131-134.

————, G. B. Ramsey, A. H. Glaves and J. Strait. Drying tests with washed late-crop potatoes in the Red River Valley, 1950-1951. 179-184.

Mills, W. R., see Peterson, L. C.

Moursi, M. A. The effect of depth of planting on germination, level of tuber formation and yield of the potato crop. 242-246.

Natti, J. J., H. C. Kirkpatrick, and A. F. Ross. Host range of potato leafroll virus. 55-64.

Nyland, R. E. and A. J. Poivan. The influence of variety and date of planting on the relative cooking quality of potatoes graded according to specific gravity. 107-118.

Olson, R. L., see Treadway, R. H.
Patterson, C. F. A method of obtaining fruits in the potato variety Russet Burbank. 89-91.
Payne, M. G., J. L. Fults, R. J. Hay, and C. H. Livingston. Protein content and specific gravity of Red McClure potatoes increased by 2,4-D treatment. 46-49.
Peters, B. G. The golden nematode in Britain. 226-230.
Peterson, L. C., and W. R. Mills. Resistance of some American potato varieties to the late blight of potatoes. 65-70.
Poivan, A. J., see Nylund, R. E.
Pushkarnath, see Thirumalachar, M. J.
Ramsey, G. B., see Lutz, J. M.
Rasmussen, M. P. An economic study of retail marketing of potatoes graded by specific gravity (abs.) 103-105.
Raychaudhuri, S. P. Dilution curve of a ring-spot strain of potato virus X. 134-136.
Rieman, G. H., D. C. Cooper, and M. Rominsky. Potato tuber development I. the Russet Burbank variety: Influence of seed-piece origin and spacing on tuber size and shape. 98-103.
Rominsky, M., see Rieman, G. H.
Ross, A. F., see Natti, J. J.
Roberts, Sir J. D. Virus tested potatoes in Scotland. 197-204.
Samson, R. W., see Wallin, J. R.
Sandar, N., see Andersen, E. T.
Schaal, L. A., G. Johnson and A. O. Simonds. Comparison of scab resistance of potato tubers as indicated by the ferric chloride test. 257-262.
Simonds, A. O., see Schaal, L. A.
Skogley, C. R. Results with various chemicals for potato vine killing. 140-142.
Sleesman, J. P. Control of insects attacking the foliage of potato. 165-174.
Soliman, A. A. The relation between the leafroll virus and net-necrosis of potatoes. 1-5.
————. Leafroll of potatoes as a storage problem. 35-45.
Strait, J., see Lutz, J. M.
Swaminathan, M. S. Studies on the inter-relationships between taxonomic series in the section *Tuberarium*, genus *Solanum* I. *Commersoniana* and *Tuberosa*. 271-281.
Talley, E .A., see Woodward, C. F.
Thompson, H. C., see Van Middelem, C. H.
Thompson, N. R. and E. J. Wheeler. A rapid test for the prediction of color in cooked potatoes. 119-123.
————, see Franklin, E. W.
Thirumalachar, M. J. Cercospora leaf spot and stem canker disease of potato. 94-97.
————, and Pushkarnath. Resistance of potato varieties to charcoal rot. 73-77.
Treadway, R. H., and R. L. Olson. Treatment and packaging of pre-peeled potatoes. 283-288.
Turnquist, O. C., see Grover, O.
VanMiddelem, C. H., W. C. Jacob, and H. C. Thompson. Spectrophotometric comparison of internal black spot and melanin. 85-88.
Wade, E. K., see Wallin, J. R.
Wallin, J R., E. K. Wade and H. M. Darling. The relation of weekly mean temperatures and cumulative rainfall to late blight epiphytotics. 231-242.
Wallin, J. R. and R. W. Samson. The relation of cumulative amount and frequency of rainfall of mean temperature to late blight in Indiana. 262-270.
Wallis, R. L. Relation of time of planting potatoes to tuber flea beetle attack in Nebraska and Wyoming. 70-72.
Wheeler, E. J., see Thompson, N. R.
White, E. S. and M .L. Greenwood. The effectiveness of reduced dosage levels of activated carbon in counteracting the off-flavor in potatoes grown on soil treated with benzene hexachloride. 6-9.
Woodward, C. F. and E. A. Talley. Review of the nitrogenous constituents of the potato. 205-212.

Subject Index

Activated Carbon, see Carbon
Alaska, see Knik
Antibiotics, see Bacterial Decay
Bacon, John S., honored, 302.
Bacterial decay, control of through antibiotics, 143-147.
Benzene hexachloride, see Carbon
Black spot, internal, spectrophotometric comparison with melanin, 85-88.
Blight, Late
    resistance of some American potato varieties, 65-70.
    relation of temperature and rainfall in Wisconsin, 231-242.
    relation of rainfall and temperature in Indiana, 262-270.
Box, as container for potatoes, 221-225.
Brazil, see Potato growing.
Brown spot, internal, varietal susceptibility of potatoes, 92-94.
Bushel club, 400, influence on Michigan potato production practices, 150-153.
Carbon, activated, effectiveness in counteracting off-flavor in potatoes grown on soil treated with benzene hexachloride, 6-9.
Cercospora leaf spot, 94-103.
Charcoal rot, resistance of varieties to, 73-76.
Color, test for prediction of, in cooked potatoes, 119-123.
Cooking quality, evaluation and relationship to potato characteristics, 52-53.
    as influenced by variety and date of planting and specific gravity, 107-118.
Container, see Box.
Depth of planting, effect on germination, tuber formation and yield, 242-246.
DTT, see Iris whitefly.
Drying tests, with washed late-crop potatoes in Red River Valley, 179-184.
Evans, Harold J. "Red," honored, 21.
Ferric chloride test, see Scab resistance
Flavor, see carbon
Foliage, control of insects attacking, 165-174.
    development of, 29-34.
Fungicides, ethylene bisdithiocarbamate, history and development of, 137-140.
Fusarium, Dry rot, see sprout inhibitors
    Tuber rots as related to injuries and chemicals, 131-133.
Handling, palletized, and storage of potatoes, 78-81.
Honored, four members, 298.
Index, Vol. 30 Nos. 1-12, 303-306.
Indiana, see Blight, Late
Insect(s), control of insects attacking foliage ,165-174.
    relation of time of planting to tuber flea beetle attack in Nebraska and Wyoming, 70-72.
Insecticides, see leafroll control.
Internal black spot, see Black spot.
Iris Whitefly, as affected by DDT, parathion and malathon, 213-220.
Knik, see varieties.
Krantz, F. A., honored, 300.
Leafroll, control by insecticides, 187-196.
    a storage problem, 35-45.
    frost range, 55-64.
    virus and net-necrosis, 1-5.
Malathon, see Iris whitefly.
Maleic hydrazide, effect on stored potatoes, 289-295.
Manota, see varieties.
Marketing of potatoes graded by specific gravity (abs.), 103-105.
Markets, research and sales of potatoes, 15-19.
Melanin, see Black spot.
Michigan, see Bushel club.
Minutes, see Potato Association of America
Nebraska, see Insects.
Nematode, golden, in Britain, 226-230.
Net-Necrosis, see Leafroll.
Newdick, E. L., honored, 301.

Nitrogenous constituents, of potato, review, 205-212.
Off-Flavor, see Activated Carbon
Packaging, see Pre-peeled
Padding materials, use of in reduction of injuries to potato tubers, 247-255.
Parathion, see Iris whitefly.
Peppin, honored, 299.
Planting, depth of, as it affects germination, level of tuber formation and yield of crop, 242-246.
time of, see Tuber flea beetle.
Potato Association of America, announcement, 77.
call for papers, 130.
minutes, 22-26.
program of annual meeting, 174-177.
treasurer's report of financial statement, 27,
Potato growing, in Brazil, 124-129.
Pre-peeled potatoes, treatment and packaging, 283-288.
Production trends, 155-164.
Protein content, of Red McClure potatoes increased by 2,4-D treatment, 46-49.
Resistance, see Late blight.
see Charcoal rot.
see Scab resistance.
Redburt, see varieties.
Red River Valley, see Drying tests.
Ring-spot, strain of potato virus X, 134-146.
Ring rot, survey, 1940-1951, 184-185.
Rot, see Charcoal.
see Fusarium tuber, as related to injuries and certain chemical treatments, 131-134.
Russet burbank, method of obtaining fruits in potato variety, 89-91.
Sales, trends in 1940-1950, 155-164.
Scab resistance, as indicated by the ferric chloride test, 257-262.
Scotland, see Virus tested.
Specific gravity, see Cooking quality.
see Protein content.
Sprout inhibitors, effect on fusarium dry rot and sprouting of tubers, 10-14.
Stem canker, see Cercospora leaf spot,
Stevenson, Dr. Frederick J., honored, 20.
Storage, see Handling, 78-82.
see Leaf roll.
see Maleic hydrazide.
Taxonomic series, studies on inter-relationships in section *Tuberarium*. Genus *Solanum* I. *Commersoniana* and *Tuberosa*, 271-281.
Temperature and rainfall, see Blight, late.
Trophy, world's champion potato, announcement of, 105.
Tuber development, see varieties.
Tuber, flea beetle, see Insects.
Variety, see Cooking quality.
Varieties, Knik, in Alaska, 148-149.
Manota, 50-52.
Redburt, 186.
Red McClure, see Protein content.
Russet Burbank, development of tubers as influenced by origin and spacing, 98-103.
methods of obtaining fruit, 89-91.
Vine killing, results with various chemicals, 140-142.
Virus, see Leaf roll.
dilution curve of ring-spot strain of Virus X, 134-136.
tested potatoes in Scotland, 197-204.
Washed potatoes, see Drying tests.
Wisconsin, see Blight, Late.
Wyoming, see Insects.